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Hansjurg Hunziker

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QUARLES & BRADY LLP
RENAISSANCE ONE
TWO NORTH CENTRAL AVENUE
PHOENIX, AZ 85004-2391

EXAMINER

FIGUEROA, FELIX O

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/822,247
Filing Date: April 08, 2004
Appellant(s): HUNZIKER, HANSJURG

MAILED

OCT 22 2007

GROUP 2800

Robert D. Atkins
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 07/25/2007 appealing from the Office action mailed August 18, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

| | | |
|-----------------|-----------------|---------|
| US 6,224,430 B1 | Kusuda et al. | 05-2001 |
| US 5,250,770 A | Cummings | 10-1993 |
| US 6,416,356 B1 | Hutchins et al. | 07-2002 |

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1- 15 and 17-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kusuda et al. (US 6,224,430) in view of Cummings (US 5,250,770).

Kusuda discloses an assembly comprising: a main body (31) having a plurality of terminal mounting portions (not labeled, at 34a-e) disposed on an upper surface of the main body; plurality of terminals (41a-e) coupled to the plurality of terminal mounting portions, wherein each to the plurality of terminals includes a substantially flat surface for securing wire hardware and a shaft (43) extending through slots (34a-e) in the main body to a bottom surface (see Fig.3A) of the main body.

Kusuda discloses substantially the claimed invention except for the first and second side flanges. Cummings teaches an assembly (10) comprising a main body (12) and a first side flange (224a) having a barbed-edge (not labeled) and coupled a first side surface of the main body; and a second side flange (224b) having a barbed-edge (not labeled) and coupled to a second side surface of the main body, wherein the flanges are operable to allow the main body to readily disengage from a printed circuit board while giving the assembly a foot print that is substantially the same size of the main body, thus allowing fast and securely mounting of the assembly to a housing.

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Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the assembly of Kusuda with first and second side flanges, as taught by Cummings, to fast and securely mount the assembly to a housing.

Regarding claim 2, Cummings discloses a portion of the first and second side flanges being disposed apart from the main body to form a gap between the portion of the first and second side flanges and the main body.

Regarding claim 3, Cummings discloses the flanges being made of flexible material.

Regarding claim 4, Kusuda, as modified, discloses the electrical connector being adapted for insertion into a mounting surface.

Regarding claim 5, Cummings discloses the first and second side flanges being adapted for compressing during insertion into an opening of the mounting surface and to snap back when the barbed-edges of the first and second side flanges clear the mounting surface.

Regarding claim 6, Kusuda discloses a plurality of barrier walls (33a-d) separating the terminal mounting portions.

Regarding claim 7, Kusuda discloses the main body being made of non-conductive material (col.4 lines 1-3).

Regarding claim 8, Kusuda discloses the plurality of terminals being made with a conductive material (col. 4 lines 35-37).

Regarding claim 9, Kusuda discloses the plurality of terminals includes an opening (see Fig.3). Please note that a recitation of the intended use (i.e. for receiving

a wire connection) of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963).

Regarding claim 10, Kusuda discloses the shafts of the plurality of terminals each include teeth (44a,44b) to lock into the slots in the main body.

Regarding claim 11, Kusuda discloses a cover assembly (30) disposed over a portion of the main body.

Regarding claim 12, Kusuda discloses the plurality of terminal mounting portions includes an opening (37) adapted for receiving securing hardware.

Regarding claim 13, Kusuda discloses substantially the claimed invention except for the connector being mounted to a power supply. However, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the connector mounted to a power supply in order to provide an efficient and reliable output interface for the power supply.

Regarding claims 14 and 15, Kusuda discloses an assembly, comprising: a main body (31) having a terminal-mounting portion (not labeled, at/near 34a) disposed on a first surface of the main body; a terminal (41a-e) coupled to the plurality of terminal mounting portions, wherein the terminals includes a substantially flat surface for securing wire hardware and a shaft (43) extending through slots (34a-e) in the main body to a bottom surface (see Fig.3A) of the main body.

Kusuda discloses substantially the claimed invention except for the first and second side flanges. Cummings teaches an assembly (10) comprising a main body (12) and a first side flange (224a) having a ridge portion (not labeled) and coupled a first side surface of the main body; and a second side flange (224b) having a ridge portion (not labeled) and coupled to a second side surface of the main body, wherein the flanges are operable to allow the main body to readily disengage from a printed circuit board while giving the assembly a foot print that is substantially the same size of the main body, thus allowing fast and securely mounting of the assembly to a housing. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the assembly of Kusuda with first and second side flanges, as taught by Cummings, to fast and securely mount the assembly to a housing.

Regarding claim 17, Cummings discloses a portion of the first flange being disposed apart from the main body to form a gap between the portion of the first flange and the main body.

Regarding claim 18, Cummings discloses the first flange is made with a flexible material.

Regarding claim 19, Kusuda, as modified, discloses the electrical connector being adapted for insertion into a mounting surface.

Regarding claim 20, Cummings discloses the first flange being adapted for compressing during insertion into an opening of the mounting surface and to snap back when the barbed-edge (ridge portion) of the first flange clears the mounting surface.

Regarding claim 21, Kusuda discloses a barrier wall (33a) isolating the terminal mounting portion.

Regarding claim 22, Kusuda discloses a cover assembly (30) disposed over a portion of the main body.

Regarding claim 23, Kusuda discloses the electrical connector is mounted to an electronic assembly.

Regarding claim 24, Kusuda discloses substantially the claimed invention except for the connector being mounted to a power supply. However, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the connector mounted to a power supply in order to provide an efficient and reliable output interface for the power supply.

Regarding claims 25 and 26, Kusuda discloses an assembly for connecting to electrical conductors, comprising: non-conductive body (31) having a terminal-mounting portion disposed on a first surface of the body; a terminal (41a-e) coupled to the plurality of terminal mounting portions, wherein the terminals includes a substantially flat surface for securing wire hardware and a shaft (43) extending through slots (34a-e) in the main body to a bottom surface (see Fig.3A) of the main body.

Kusuda discloses substantially the claimed invention except for the first and second clips. Cummings teaches an assembly (10) comprising a main body (12) and a first side flange (224a) coupled a first side surface of the main body; and a second side flange (224b) coupled to a second side surface of the main body, wherein the flanges are operable to allow the main body to readily disengage from a printed circuit board

while giving the assembly a foot print that is substantially the same size of the main body, thus allowing fast and secure mounting of the assembly to a housing.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the assembly of Kusuda with first and second side flanges, as taught by Cummings, to fast and securely mount the assembly to a housing.

Regarding claim 27, Kusuda discloses a terminal (41a) coupled to the terminal mounting portion and having a shaft (43) extending through a slot (34a) in the body to a bottom surface of the body.

Regarding claim 28, Kusuda discloses a portion of the first clip being disposed apart from the body to form a gap between the portion of the first clip and the body.

Regarding claim 29, Kusuda discloses a barrier wall (33a) isolating the terminal-mounting portion.

Claims 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hutchins et al. (US 6,416,356) in view of Cummings.

Hutchins discloses an assembly mounted on a circuit board (68) comprising: a power converter circuit (86); and an electrical connector (64) coupled to the power converter circuit, the electrical connector including, a main body having a terminal mounting portion (not labeled, see Fig.5) disposed on a first surface of the main body; a terminal (not labeled, see Fig.5) coupled to the plurality of terminal mounting portions, wherein the terminals include a substantially flat surface for securing wire hardware and a shaft extending through slots in the main body to a bottom surface of the main body.

Hutchins discloses substantially the claimed invention except for the first and second side flanges. Cummings teaches an assembly (10) comprising a main body (12) and a first side flange (224a) having a ridge portion (not labeled) and coupled a first side surface of the main body; and a second side flange (224b) having a ridge portion (not labeled) and coupled to a second side surface of the main body, wherein the flanges are operable to allow the main body to readily disengage from a printed circuit board while giving the assembly a foot print that is substantially the same size of the main body, thus allowing fast and securely mounting of the assembly to a housing. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the assembly of Kusuda with first and second side flanges, as taught by Cummings, to fast and securely mount the assembly to a housing.

(10) Response to Argument

Regarding claim 1:

In response to Appellant's argument (on page 12, second full paragraph) that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to form the assembly of Kusuda with first and

second side flanges, as taught by Cummings, to fast and securely mount the assembly to a housing.

In response to Appellant's arguments that in Cummings "the purpose for latching hooks 224a-b is to compensate for variations in the thickness of the supporting panel 228, so as to avoid any looseness or play between the supporting panel and the latching hooks 224a-b, despite variations in the thickness of the panel 228", it is noted that this purpose is in accordance with the motivation provided in the final Office action, i.e. to fast and securely mount the assembly to a housing.

In response to Appellant's argument (on page 13, first full paragraph) that "there is absolute nothing in Kusuda that would lead one to consider the teachings of Cummings", it is noted that it is not required that a prior art reference (in this case, Kusuda) disclose any deficiency in order one skilled in the art to improve upon that reference. In this case, Cummings teaches the use of flanges to fast and securely mount the assembly to a panel/board.

In response to Appellant's argument (on page 11, second full paragraph) that the device of Cummings have "little or no similarity to an electrical connector" of Kusuda, i.e. that it is nonanalogous art, it has been held that a prior art reference must either be in the field of Appellant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the Appellant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Cummings is in the field of Appellant's endeavor, i.e. electrical devices mounted to a panel/board. Additionally, Cummings is

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also reasonably pertinent to the particular problem with which the Appellant was concerned, i.e. to provide an easy and simple connection process with the panel/board.

In response to Appellant's arguments against the references individually, i.e. that Cummings does not have "a main body with a plurality of terminal mounting portions disposed on an upper surface of the main body" or "a plurality of terminals coupled terminal mounting portions", please note that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, Kusuda discloses these limitations.

In response to Appellant's argument (on the paragraph starting at the bottom of page 13) that Cummings is concerned solving a different problem, i.e. allowing for easy mounting instead of allowing the body to be readily disengageable, please note the fact that Appellant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

In response to Appellant's arguments that Cummings "is silent as to the space limitation on the mounting surface and ease of removal", please note that a reference does not need provide extensive explanations or a complete list of possible advantages in order for one skilled in the art to recognized and make use of such advantages.

In response to Appellant's argument (on page 15, first full paragraph) that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Cummings teaches the use of a main body and a first and second side flanges, which are operable to allow the main body to readily disengage from a printed circuit board while giving the assembly a foot print that is substantially the same size of the main body, in order to allow fast and secure mounting of the assembly to a housing.

In response to Appellant's argument that the reference are not solving the same problem as the present invention, please note that the fact that Appellant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

In response to Appellant's arguments that "[the present invention is not obvious because] the knowledge of persons of ordinary skill in the art has never before brought the totality of the present invention together", please note that accepting this statement as true or persuasive will bar any kind of obviousness-type rejection at all.

In response to Appellant's argument (on page 15, first full paragraph) that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the Appellant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to Appellant's arguments (starting on the last paragraph of page 16) that the combination of Kusuda and Cummings is not obvious because "[i]f the assembly taught by Kusuda is soldered in place, it may be difficult to remove" and "extra manufacturing time and cost are involved with soldering and de-soldering the assembly from the board", please note that Kusuda is not limited to soldered terminals, but also discloses the use of solder less terminals (see Fig.3).

In response to Appellant's arguments (on page 17, first paragraph) against the references individually (i.e. against Kusuda alone), please note that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Regarding claim 14:

In response to Appellant's arguments (on page 18) against the references individually, please note that one cannot show nonobviousness by attacking references

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individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to Appellant's argument (on page 19, first full paragraph) that Cummings does not have "any discussion about the problems associated with mounting electrical connectors to printed circuit boards", i.e. that Cummings is nonanalogous art, it has been held that a prior art reference must either be in the field of Appellant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the Appellant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Cummings is in the field of Appellant's endeavor, i.e. electrical devices mounted to a panel/board. Additionally, Cummings is also reasonably pertinent to the particular problem with which the Appellant was concerned, i.e. to provide an easy and simple connection process with the panel/board.

In response to Appellant's arguments (on page 19, last paragraph) that Cummings is concerned solving a different problem, i.e. allowing for easy mounting instead of allowing the body to be readily disengageable, please note the fact that Appellant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

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In response to Appellant's argument (on page 20, first full paragraph) that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the Appellant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Regarding claim 25:

In response to Appellant's arguments (on page 20) against the references individually (i.e. against Kusuda), please note that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to Appellant's argument (starting on page 20) that Cummings is nonanalogous art, it has been held that a prior art reference must either be in the field of Appellant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the Appellant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Cummings is in the field of Appellant's endeavor, i.e. electrical devices mounted to a panel/board. Additionally, Cummings is also reasonably

pertinent to the particular problem with which the Appellant was concerned, i.e. to provide an easy and simple connection process with the panel/board.

In response to Appellant's arguments (on page 21, first full paragraph) that Cummings "is silent as to space limitations on the mounting surface and ease of removal", i.e. Cummings is solving a different problem, please note the fact that Appellant can recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

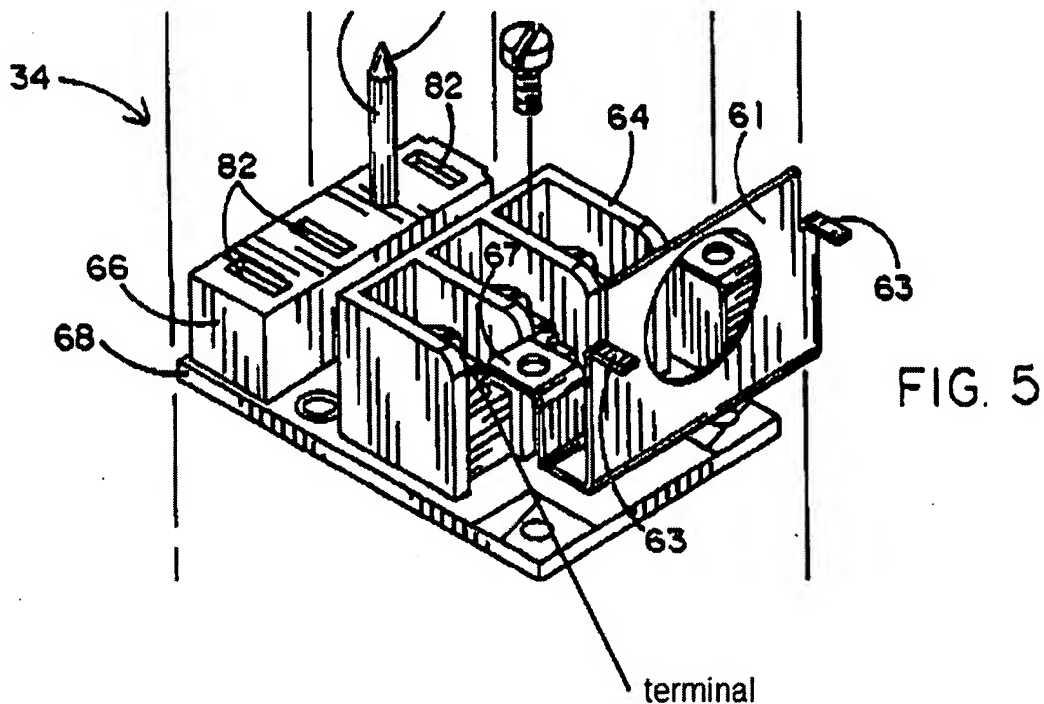
In response to Appellant's argument (on page 22, first full paragraph) that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the Appellant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Regarding claim 35:

In response to Appellant's arguments (on page 23, first full paragraph) that Hutchins does not teach or suggest "a terminal shaft which extends through slots in the main body to a bottom surface of the main body", please note that Hutchins discloses a terminal (see following figure) that is connected to the circuit board (68) through pads

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(col.2, lines 65-67) in the bottom of the terminal block (64). Accordingly, a shaft part of the terminal must extend to the bottom of the terminal block (64) to complete the connection between the wires (62, Fig.4b) and the circuit board (68).



Contrary to Appellant's argument, the terminal block is defined by element 64, and not element 66.


(11) Related Proceeding(s) Appendix

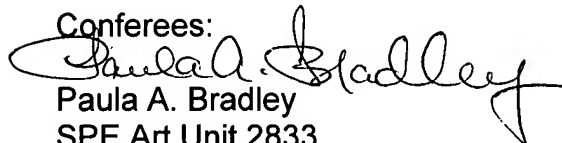

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,


Felix O. Figueroa

Conferees:

Paula A. Bradley
SPE Art Unit 2833

Ricky L. Mack
SPE Art Unit 2873